IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application	)	PATENT APPLICATION
	)	
Inventor: Multer	)	
	)	Art Unit: 2165
Application No.: 09/753,537	)	
	)	Examiner: Abel Jalil, N.
Filed: January 2, 2001	)	
	)	Customer No. 28554
Title: BINARY DATA SYNCRHONIZATION ENGINE	)	
	)	
	)	

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This brief is submitted in accordance with 37 C.F.R. §1.192, following the Notice of Appeal filed by Appellant(s) filed on February 2, 2006. The fee set forth in 1.17(c) is submitted herewith.

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I.   REAL PARTY IN INTEREST *(37 C.F.R. §1.192(c)(1))*

The real party in interest is fusionOne, Inc.

II.   RELATED APPEALS AND INTERFERENCES *(37 C.F.R. §1.192(c)(2))*

Appellant knows of no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   STATUS OF CLAIMS *(37 C.F.R. §1.192(c)(3))*

Claims 80-90 and 109-116 are pending in this application. Of these, claims 80-90 and 109-116 stand finally rejected.

Appellant herein appeals from the final rejection of claims 80-90 and 109-116.

IV.   STATUS OF AMENDMENTS *(37 C.F.R. §1.192(c)(4))*

No amendments are submitted with this Brief. All amendments to date have been entered.

V.   SUMMARY OF THE INVENTION *(37 C.F.R. §1.192(c)(5))*

With a multitude of different portable computing devices on the market, each operating with data in a different proprietary format, keeping information between the different devices synchronized has become increasingly problematic. For example, if an individual keeps a calendar of information on a personal computer in his or her office using a particular personal information manager application, the individual would generally like to have the same information available in a cellular phone, hand-held organizer, and perhaps a home personal computer. The individual may additionally have a notebook computer which requires synchronizing file data such as presentations or working documents between the notebook and the office computer.

Synchronization application programs have been developed to address the need to keep data synchronized. In many cases where document synchronization is required, the synchronization routine simply determines whether or not the documents in question have changed, and uses a time-based representation to determine which of the two files is newer, and replaces the older file with the

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newer file to achieve synchronization, as long as the older of the two files was in fact not changed. This is the model used in the familiar "Briefcase" function in Microsoft Windows-based systems. If both files have changed, then the synchronization routine presents the option of conflict resolution to the user.

Such synchronization schemes are generally inefficient since they require full band-width of the document or binary file to be transferred via the synchronization link. In addition, at some level the synchronization programs require interaction by the user to map certain fields between different programs. By contrast, the present inventors conceived of a system discerning the specific changes that occurred to a file, and using the changes to accomplish synchronization of the files on the user's various devices. In particular embodiments, the present system includes a differencing engine capable of discerning changes to a file by comparison to a stored record of the file. The changes, referred to as differencing data, may then be used in a differencing transaction and output to a network coupled server. Other versions of the updated file on other computing devices may then be synchronized to the updated file using the differencing transaction.

VI. ISSUES FOR REVIEW *(37 C.F.R. §1.192(c)(6))*

Whether claims 80-90 and 109-116 of the application are properly rejected under the judicially created doctrine of double patenting over claims 80 and 82-139 of U.S. Serial No. 09/753,643 (now issued as U.S. Patent No. 7,007,041 ("the '041 Patent")).

Whether claims 80-90 and 109-116 of the application are properly rejected under the judicially created doctrine of double patenting over claims 1-50 of U.S. Patent No. 6,738,789 ("the '789 Patent").

Whether claims 80-90 and 109-116 of the application are properly rejected under the judicially created doctrine of double patenting over claims 1-25 of U.S. Patent No. 6,757,696 ("the '696 Patent").

Whether claims 80-90 and 109-116 of the application are properly rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,574,906 to Morris ("Morris").

VII. GROUPING OF CLAIMS *(37 C.F.R. §1.192(c)(7))*

Appellant requests for the purposes of review that claims 80-90 and 109-115 be grouped together in first group, and that claim 116 be grouped in a second group.

VIII. ARGUMENT *(37 C.F.R. §1.192(c)(8))*

A.   Obviousness-Type Double Patenting Rejections of Claims 80-90 and 109-116

Obviousness-type double patenting is a judicially created doctrine ground in public policy that prevents the extension of a patent term through obvious variants of the originally claimed invention. In determining whether the claims of the later application are obvious variants, the analysis is substantially the same as that under §103. *In re Braat*, 937 F.2d. 589, 592-93 (Fed. Cir. 1991). The criteria under §103 is whether it would have been obvious to modify the issued patent claim, or combine the issued patent claim with a teaching from the art, to arrive at the newly claimed invention. In performing this obviousness analysis, it is the issued patent claim itself, and not the disclosure of the issued patent in general, that may be used by the examiner as a basis for comparison in an obviousness-type double patenting rejection. *In re Bartfeld*, 925 F.2d 1450, 1453 (Fed. Cir. 1991). Use of the patent disclosure in an obviousness-type double patenting rejection for anything other than an aid in interpreting the issued claim is grounds for traversal.

> 1.   Double Patenting Rejection over U.S.
> Serial No. 09/753,643 (U.S. Patent No.7,007,041)[1]

Claims 80-115 of the present invention each recite in part a computer code for comparing a file and a record of the file, and providing binary differencing data between the file and record of the file:

> computer code for comparing at least one file on the personal
> computer and a record of the file on the computer, and providing

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[1]   U.S. Serial No. 09/753,643 cited in the Office action has issued as U.S. Patent No. 7,007,041 including claims 1-58. The rejection is treated as a double patenting rejection over claims 1-58 of the issued patent.

binary differencing data between the file and the record of the file (claims 80-90)

computer code for comparing at least one file on a network coupled device in communication with the network coupled server and extracting binary differencing data representing the difference between the file and a record of the file (claims 109-115)

Claim 116 recites "storing… and outputting binary differencing data."

These features are not recited in claims 1-58 of the '041 Patent. Claim 1 of the '041 Patent is illustrative:

1. An application object for a synchronization system on a network coupled processing device, comprising:

a plurality of objects, each object translating third party data to a universal middle format, including a root object providing an entry point into individual application databases;

at least one child object; and
at least one interface object comprising a component model interface and an item container interface.

Nowhere does claim 1 (or the remaining claims) of the '041 Patent recite binary differencing data or a record of a file. All claim limitations are significant, and must be given weight and effect vis-a-vis the patentability of the claims. *Application of Saether*, 492 F.2d 849, 852 (C.C.P.A. 1974). If even a single claim limitation is not taught or suggested by the prior art, then that claim cannot be obvious over the prior art. *Application of Glass*, 472 F.2d 1388, 1392 (C.C.P.A. 1973). It is therefore respectfully submitted that the claims of the present invention would therefore not be considered obvious over the claims of the '041 Patent.

In making the rejection, it is believed that the Examiner has compared the claims of the present application against the <u>disclosure</u> of the '041 Patent in violation of the requirements for a double patenting rejection. In support, applicants note the Examiner's comments in making this rejection:

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The subject matter claimed in the instant application is fully disclosed
in the referenced copending application…

However, regardless of the Examiner's basis of the rejection, it is respectfully submitted that claims 80-90 and 108-116 are not obvious over claims 1-58 of the '041 Patent, and it is respectfully submitted that the rejection on these grounds be withdrawn.

2.   Double Patenting Rejection over the '789 Patent

As indicated above, Claims 80-115 of the present invention each recite in part a computer code for comparing a file and a record of the file, and providing binary differencing data between the file and record of the file. Claim 116 recites "storing… and outputting binary differencing data."

These features are not recited in claims 1-50 of the '789 Patent. Claim 1 of the '789 Patent is illustrative:

> 1. A data package in an object oriented synchronization system containing instructions for manipulating user data, comprising:
> a header identifying the data package and containing information on content in the data package;
>
> transaction objects operable to effect a change to user data on a device and including object operation instructions, said transaction object being one of an object hierarchy which includes an account object, an device object, a data class object, a data in an object oriented environment.

Nowhere does claim 1 (or the remaining claims) of the '789 Patent recite binary differencing data or a record of a file. Without such recitations, it is respectfully submitted that the claims of the '789 Patent cannot render the present invention obvious.

In making the rejection, it is again believed that the Examiner has compared the claims of the present application against the disclosure of the '789 Patent in violation of the requirements for a double patenting rejection. However, regardless of the Examiner's basis of the rejection, it is respectfully submitted that claims 80-90 and 108-116 are not obvious over claims 1-50 of the '789 Patent, and it is respectfully submitted that the rejection on these grounds be withdrawn.

3. Double Patenting Rejection over the '696 Patent

As indicated above, Claims 80-115 of the present invention each recite in part a computer code for comparing a file and a record of the file, and providing binary differencing data between the file and record of the file. Claim 116 recites "storing… and outputting binary differencing data."

These features are not recited in claims 1-25 of the '696 Patent. Claim 1 of the '696 Patent is illustrative:

> 1. A controller for a synchronization system, comprising:
>
> an authentication module identifying a user coupled to the synchronization system; and
> a synchronization manager communicating with at least one interactive agent to control data migration between a first network coupled device and a second network device.

Nowhere does claim 1 (or the remaining claims) of the '696 Patent recite a record of a file or that the data is binary differencing data. Without such recitations, it is respectfully submitted that the claims of the '696 Patent cannot render the present invention obvious.

In making the rejection, it is again believed that the Examiner has compared the claims of the present application against the disclosure of the '696 Patent in violation of the requirements for a double patenting rejection. However, regardless of the Examiner's basis of the rejection, it is respectfully submitted that claims 80-90 and 108-116 are not obvious over claims 1-25 of the '696 Patent, and it is respectfully submitted that the rejection on these grounds be withdrawn.

Based on the above, it is respectfully requested that the rejection of claims 80-90 and 109-116 under the judicially created doctrine of obviousness-type double patenting over the '041 Patent, the '789 Patent and the '696 Patent be withdrawn.[2]

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[2]   Claims 80-90 and 109-116 further stand rejected under an obviousness-type double patenting rejection over U.S. Patent No. 6,694,336 and U.S. Patent No. 6,671,757. Applicants are willing to file a terminal disclaimer over these patents once the issues on appeal are resolved.

B.   Rejection of Claims 80-90 and 109-116 Under 35 U.S.C. §102(b)

Claims 80-90 and 109-116 are rejected under 35 U.S.C. §102(b) as being anticipated by Morris. Morris relates to a network storage system. In such systems, data, programs, etc. on a client may be backed-up to a server to which the client is networked. In embodiments of the system of Morris, when a file on the client is changed, the file is compared against a base (prior version) of the file (either in the client or in the server). The comparison generates a delta file, which is then stored on the server.

A significant distinction between the claims of the present invention and the disclosure of Morris is that Morris does not disclose, teach or suggest a synchronization system. In particular, Morris generates a delta file for changes solely for use in backing up a file on the server. The delta file is not used to synchronize the changed file to other devices networked to the server. The delta file is simply stored on the network server.

By contrast, the present invention generates differencing information and then uses that information to synchronize other devices. This feature is expressly recited in Claims 80-90, which recite in part a network coupled processing device having:

> a transaction generator providing at least one binary difference transaction including said binary differencing data to an output for forwarding to a network coupled server, *the server using the binary differencing data to synchronize at least one other network coupled processing device*.

This feature is nowhere disclosed, taught or suggested in Morris. In support of the rejection, the Examiner claims that the above-described limitations are shown in Morris at Col. 11, line 52 through Col. 12, line 15, Fig. 2 and Col. 6, lines 50-67. Applicants respectfully submit that these sections do not support the Examiner's position. Morris at those sections is clear that the comparison and generation of the delta file are taking place within the server itself. Claim 80 and claims dependent thereon conversely recite a processing device where the comparison and generation of the delta file take place, and the delta file is then provided "to an output for forwarding to a network coupled server." However, at Col. 13, lines 58 – Col. 14, line 39, Morris does disclose an embodiment where the comparison and delta file are generated in the client device, and then the delta file is sent to the

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server.

Regardless, what Morris does not disclose, teach or suggest in any way is a "server using the binary differencing data to synchronize at least one other network coupled processing device." Morris at points discusses whether the new file from the client and the backup file are "in synch" (*e.g.*, Col. 12, lines 5-8). What Morris is referring to there is that the portions of the new file and the backup file which are "in synch" are the same as each other, and do not result in difference data for the delta file. Morris does not disclose, teach or suggest a synchronization process. The delta file in Morris is either generated within the server and stored as backup, or it is generated within the client device and then forwarded to the server, where it is then stored as backup. Morris further discloses that the delta file can later be used in a restore operation to recreate the file back in the client device. However, Morris has no disclosure of any kind that the delta file is used by the server for synchronizing another network coupled device.

Similarly, independent Claim 109, and Claims 110-115 dependent thereon, each recite in part:

> a transaction generator providing at least one binary difference transaction including said binary differencing data *to an output of the network coupled server.*

As indicated above, this feature is nowhere disclosed, taught or suggested in Morris. The delta file in Morris is not provided to an output of the server. The delta file in Morris is either generated within the server and then stored, or it is generated within the client device, forwarded to the server, and then stored. Again, this is because the system of Morris is simply provided to backup data. Morris does not disclose synchronization of data by outputting differencing information.

Moreover, Claim 116 recites in part:

at least a first binary differencing engine coupled to a first network coupled device;

at least a second binary differencing engine coupled to a second network coupled device; and

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a storage device coupled to the first and the second network coupled devices storing binary differencing data from and outputting binary differencing data to said at least first and second binary differencing engines.

As set forth above, Morris has no disclosure of outputting binary differencing data to first and second binary differencing engines.

Each claim limitation must be found in a single prior art reference to support a rejection under §102. *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 20 (Fed. Cir. 2000). Omission of any claimed element, no matter how insubstantial, is grounds for traversing a rejection based on §102. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542 (Fed. Cir. 1983). As Morris fails to disclose the above-described claim limitations, it is respectfully requested that the rejection of Claims 80-90 and 109-116 be withdrawn.

IX.   CONCLUSION

Based on the above, it is respectfully submitted that claims 80-90 and 109-116 are patentable over the cited reference, and it is respectfully requested that the rejection of claims 80-90 and 109-116 be withdrawn.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 501826 for any matter in connection with this Appeal Brief, including any fee for extension of time, which may be required.

Respectfully submitted,

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1.-79. (canceled)

80. (previously presented) A synchronizer provided on a network coupled processing device comprising:

computer code for comparing at least one file on the personal computer and a record of the file on the computer, and providing binary differencing data between the file and the record of the file; and

a transaction generator providing at least one binary difference transaction including said binary differencing data to an output for forwarding to a network coupled server, the server using the binary differencing data to synchronize at least one other network coupled processing device.

81. (previously presented) The synchronizer of claim 80 wherein the output is coupled to a network, and the synchronizer is operatively coupled to at least one storage server via the network, the storage server receiving said difference transaction from said synchronizer.

82. (previously presented) The synchronizer of claim 81 wherein the synchronizer receives at least one binary difference transaction from the storage server, and further including computer code for applying the received difference transaction to the at least one file on the device.

83. (previously presented) The synchronizer of claim 82 wherein the synchronizer includes code for updating the record of the file on the device subsequent to applying the received difference transaction.

84. (previously presented) The synchronizer of claim 80 wherein the output 1 is coupled to a second synchronizer and the binary difference transaction is provided to said second synchronizer.

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85.   (previously presented) The synchronizer of claim 84 wherein the second synchronizer is on said device.

86.   (previously presented) The synchronizer of claim 84 wherein the second synchronizer is coupled to a network, and the output of the transaction generator is coupled to the network and the second synchronizer.

87.   (previously presented) The synchronizer of claim 80 wherein the output is coupled to a network and the synchronizer is operatively coupled to at least one storage server via the network receiving said difference transaction from said synchronizer via the network, and the second synchronizer is coupled to the storage server.

88.   (previously presented) The synchronizer of claim 80 wherein the synchronizer further includes an encryption routine encrypting the difference transaction.

89.   (previously presented) The synchronizer of claim 80 wherein the synchronizer further includes a compression routine.

90.   (previously presented) The synchronizer of claim 80 wherein the computer code for comparing at least one file on the personal computer includes Xdelta.

91. – 108. (canceled)

109.   (previously presented)   A synchronizer provided on a network coupled server, comprising:

computer code for comparing at least one file on a network coupled device in communication with the network coupled server and extracting binary differencing data representing the difference between the file and a record of the file; and

a transaction generator providing at least one transaction including said binary differencing data to an output of the network coupled server.

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110.   (previously presented) The synchronizer of claim 109 wherein the record of the file is provided on the network coupled device.

111.   (previously presented) The synchronizer of claim 109 wherein the record of the file is provided on the network coupled server.

112.   (previously presented) The synchronizer of claim 109 wherein the record of the file is a previous version in time of the file.

113.   (previously presented) The synchronizer of claim 109 wherein the synchronizer further includes application code to modify a second version of the file by applying said binary differencing data to the second version of the file.

114.   (previously presented) The synchronizer of claim 113 wherein the second version of the file is on a second network coupled device.

115.   (previously presented) The synchronizer of claim 113 wherein the second version of the file is on the network coupled server.

116.   (previously presented) A binary differencing synchronization system, comprising:

at least a first binary differencing engine coupled to a first network coupled device;

at least a second binary differencing engine coupled to a second network coupled device; and

a storage device coupled to the first and the second network coupled devices storing binary differencing data from and outputting binary differencing data to said at least first and second binary differencing engines.